



Survey Certification

7327 West Barton Road
Casper, WY 82604
(307)-472-6621 Fax (307) 472-5439

Operator	HighPoint Resources
Well Name & No.	Critter Creek 16-6005BE
API #	05-123-47306
County & State	Weld County, CO
SDI Job #	OP.014890
Rig	Savanna 802
Survey Date	23-Dec-2018

I, Seth M. Burstad, having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 1491.5 feet to a measured depth of 17919 feet is true and correct as determined from all available records.

Seth M. Burstad

Signature

26-Dec-2018

Date

Seth M. Burstad

Rockies Region Well Planner
Scientific Drilling - Rocky Mountain District



Project: Weld County, CO NAD 83
Site: Critter Creek 16 SE Pad
Well: Critter Creek 16-6005BE
Wellbore: OH
Design: OH

WELL DETAILS: Critter Creek 16-6005BE

GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802) 5251.30
Northing 1578432.52 Easting 3295089.17 Latitude 40° 54' 58.640 N Longitude 104° 25' 56.338 W

Design: OH (Critter Creek 16-6005BE/OH)

Created By: Seth Burstad

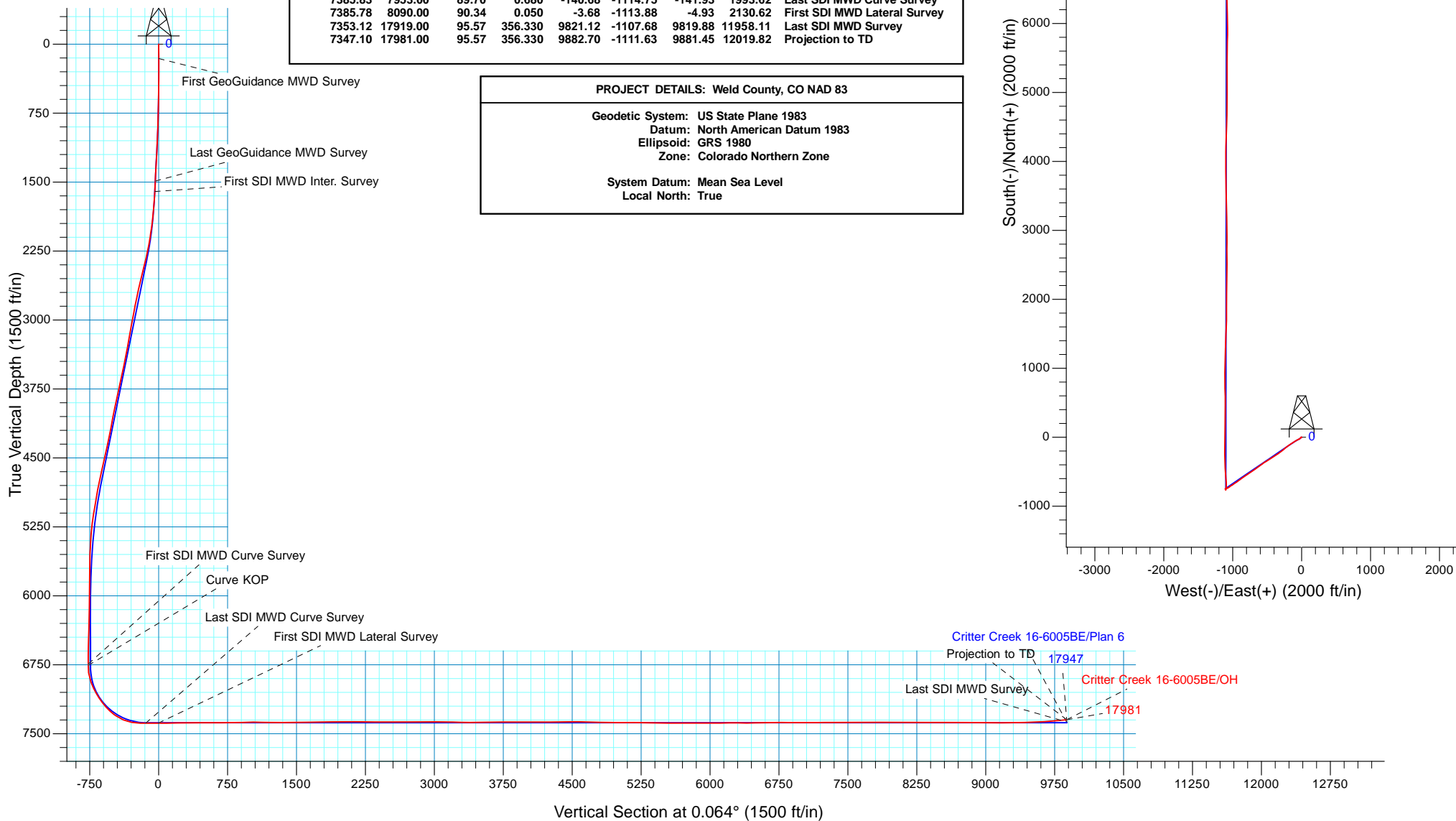
ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	V	Sect	Departure	Annotation
156.49	156.50	0.83	44.800	0.80	0.80	0.81	1.13		First GeoGuidance MWD Survey
1488.77	1491.50	6.11	240.660	-36.51	-56.05	-36.58	72.58		Last GeoGuidance MWD Survey
1602.62	1606.00	6.08	243.740	-42.18	-66.80	-42.26	84.74		First SDI MWD Inter. Survey
6741.80	6950.00	0.76	145.680	-766.05	-1100.63	-767.28	1365.92		First SDI MWD Curve Survey
6756.80	6965.00	0.87	42.437	-766.05	-1100.50	-767.28	1367.01		Curve KOP
7385.83	7953.00	89.70	0.680	-140.68	-1114.75	-141.93	1993.62		Last SDI MWD Curve Survey
7385.78	8090.00	90.34	0.050	-3.68	-1113.88	-4.93	2130.62		First SDI MWD Lateral Survey
7353.12	17919.00	95.57	356.330	9821.12	-1107.68	9819.88	11958.11		Last SDI MWD Survey
7347.10	17981.00	95.57	356.330	9882.70	-1111.63	9881.45	12019.82		Projection to TD

PROJECT DETAILS: Weld County, CO NAD 83

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level
Local North: True





HighPoint Resources

Weld County, CO NAD 83

Critter Creek 16 SE Pad

Critter Creek 16-6005BE

OH

Design: OH

Standard Survey Report

26 December, 2018



Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 16-6005BE
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Site:	Critter Creek 16 SE Pad	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Well:	Critter Creek 16-6005BE	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

Project	Weld County, CO NAD 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Critter Creek 16 SE Pad, Site Center : Critter Creek 16-5708B			
Site Position:		Northing:	1,578,436.56 usft	Latitude:	40° 54' 58.651 N
From:	Lat/Long	Easting:	3,295,329.88 usft	Longitude:	104° 25' 53.202 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.69 °

Well	Critter Creek 16-6005BE, 430' FSL 1064' FEL Sec 16 T11N R63W					
Well Position	+N/-S	0.00 ft	Northing:	1,578,432.52 usft	Latitude:	40° 54' 58.640 N
	+E/-W	0.00 ft	Easting:	3,295,089.17 usft	Longitude:	104° 25' 56.338 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	5,251.30 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	11/15/2018	8.25	67.17	52,720

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	0.064	

Survey Program	Date	12/26/2018			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
156.50	1,491.50	Survey #1 - Surface (OH)	OWSG MWD	OWSG MWD - Standard	
1,606.00	7,953.00	Survey #2 - Intermediate (OH)	OWSG MWD	OWSG MWD - Standard	
8,090.00	17,981.00	Survey #3 - Lateral (OH)	OWSG MWD	OWSG MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
156.50	0.83	44.800	156.49	0.80	0.80	0.81	0.53	0.53	0.00	
First GeoGuidance MWD Survey										
200.50	0.66	31.200	200.49	1.25	1.15	1.25	0.55	-0.39	-30.91	
244.50	1.41	265.580	244.49	1.42	0.75	1.42	4.26	1.70	-285.50	
289.50	1.80	265.010	289.47	1.32	-0.51	1.32	0.87	0.87	-1.27	
333.50	1.63	260.130	333.45	1.15	-1.81	1.15	0.51	-0.39	-11.09	
377.50	1.67	262.460	377.43	0.96	-3.07	0.96	0.18	0.09	5.30	
421.50	1.23	237.150	421.42	0.62	-4.10	0.61	1.74	-1.00	-57.52	

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 16-6005BE
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Site:	Critter Creek 16 SE Pad	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Well:	Critter Creek 16-6005BE	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
466.50	1.41	242.460	466.41	0.10	-5.00	0.10	0.48	0.40	11.80
508.50	1.05	221.200	508.40	-0.43	-5.71	-0.43	1.37	-0.86	-50.62
552.50	0.75	186.350	552.39	-1.02	-6.01	-1.02	1.39	-0.68	-79.20
596.50	0.79	193.990	596.39	-1.60	-6.11	-1.60	0.25	0.09	17.36
640.50	1.01	216.270	640.38	-2.20	-6.41	-2.21	0.93	0.50	50.64
685.50	1.05	210.470	685.37	-2.88	-6.86	-2.89	0.25	0.09	-12.89
729.50	1.67	225.150	729.36	-3.68	-7.52	-3.69	1.61	1.41	33.36
773.50	1.98	230.690	773.34	-4.61	-8.56	-4.62	0.81	0.70	12.59
817.50	2.46	228.230	817.31	-5.72	-9.85	-5.73	1.11	1.09	-5.59
862.50	2.86	231.130	862.26	-7.07	-11.45	-7.08	0.94	0.89	6.44
906.50	2.94	235.170	906.20	-8.40	-13.23	-8.42	0.50	0.18	9.18
938.50	3.38	236.930	938.15	-9.39	-14.69	-9.40	1.41	1.38	5.50
969.50	3.52	234.910	969.10	-10.43	-16.23	-10.45	0.60	0.45	-6.52
1,001.50	3.25	222.750	1,001.04	-11.66	-17.65	-11.68	2.39	-0.84	-38.00
1,033.50	3.26	213.070	1,032.99	-13.09	-18.77	-13.11	1.72	0.03	-30.25
1,064.50	3.78	216.890	1,063.93	-14.65	-19.86	-14.67	1.84	1.68	12.32
1,096.50	4.48	221.280	1,095.85	-16.43	-21.32	-16.46	2.40	2.19	13.72
1,128.50	4.92	221.200	1,127.74	-18.40	-23.05	-18.43	1.38	1.38	-0.25
1,160.50	5.36	233.060	1,159.61	-20.33	-25.15	-20.36	3.59	1.38	37.06
1,191.50	5.92	242.900	1,190.46	-21.93	-27.73	-21.96	3.60	1.81	31.74
1,223.50	6.24	244.000	1,222.28	-23.45	-30.76	-23.48	1.06	1.00	3.44
1,255.50	6.06	243.560	1,254.10	-24.96	-33.83	-25.00	0.58	-0.56	-1.38
1,286.50	6.15	241.720	1,284.92	-26.48	-36.76	-26.52	0.69	0.29	-5.94
1,318.50	6.11	242.160	1,316.74	-28.08	-39.78	-28.13	0.19	-0.13	1.38
1,350.50	6.10	243.780	1,348.56	-29.63	-42.81	-29.68	0.54	-0.03	5.06
1,381.50	6.15	243.560	1,379.38	-31.10	-45.77	-31.15	0.18	0.16	-0.71
1,413.50	5.98	241.590	1,411.20	-32.65	-48.77	-32.71	0.84	-0.53	-6.16
1,445.50	6.07	243.080	1,443.03	-34.21	-51.75	-34.27	0.56	0.28	4.66
1,491.50	6.11	240.660	1,488.77	-36.51	-56.05	-36.58	0.56	0.09	-5.26
Last GeoGuidance MWD Survey									
1,606.00	6.08	243.740	1,602.62	-42.18	-66.80	-42.26	0.29	-0.03	2.69
First SDI MWD Inter. Survey									
1,697.00	7.70	244.080	1,692.96	-46.98	-76.61	-47.07	1.78	1.78	0.37
1,788.00	9.17	236.230	1,782.98	-53.68	-88.12	-53.77	2.05	1.62	-8.63
1,879.00	11.29	237.240	1,872.52	-62.53	-101.64	-62.64	2.34	2.33	1.11
1,971.00	13.20	237.920	1,962.43	-72.98	-118.11	-73.11	2.08	2.08	0.74
2,062.00	15.62	237.620	2,050.56	-85.06	-137.27	-85.21	2.66	2.66	-0.33
2,153.00	17.15	237.210	2,137.86	-98.89	-158.89	-99.07	1.69	1.68	-0.45
2,244.00	19.38	235.950	2,224.27	-114.61	-182.68	-114.82	2.49	2.45	-1.38
2,335.00	21.18	232.830	2,309.63	-133.00	-208.30	-133.23	2.31	1.98	-3.43
2,429.00	21.12	231.430	2,397.30	-153.82	-235.07	-154.08	0.54	-0.06	-1.49
2,523.00	20.82	229.560	2,485.07	-175.21	-261.02	-175.50	0.78	-0.32	-1.99
2,617.00	20.46	228.880	2,573.04	-196.85	-286.11	-197.17	0.46	-0.38	-0.72
2,711.00	20.47	235.380	2,661.12	-217.00	-312.02	-217.35	2.42	0.01	6.91

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Well:	Critter Creek 16-6005BE	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,804.00	20.15	234.830	2,748.33	-235.46	-338.50	-235.84	0.40	-0.34	-0.59
2,899.00	19.56	234.210	2,837.69	-254.19	-364.77	-254.60	0.66	-0.62	-0.65
2,993.00	18.94	237.360	2,926.43	-271.62	-390.38	-272.06	1.29	-0.66	3.35
3,088.00	18.66	237.130	3,016.36	-288.18	-416.13	-288.65	0.30	-0.29	-0.24
3,182.00	19.95	238.730	3,105.08	-304.67	-442.47	-305.16	1.48	1.37	1.70
3,277.00	19.63	238.540	3,194.47	-321.41	-469.93	-321.94	0.34	-0.34	-0.20
3,371.00	18.98	238.540	3,283.18	-337.63	-496.44	-338.18	0.69	-0.69	0.00
3,465.00	18.66	238.140	3,372.15	-353.55	-522.25	-354.13	0.37	-0.34	-0.43
3,559.00	19.72	234.560	3,460.93	-370.68	-547.95	-371.29	1.68	1.13	-3.81
3,653.00	19.39	233.990	3,549.51	-389.05	-573.49	-389.69	0.41	-0.35	-0.61
3,748.00	19.27	234.020	3,639.16	-407.53	-598.93	-408.20	0.13	-0.13	0.03
3,842.00	20.98	233.780	3,727.41	-426.59	-625.06	-427.29	1.82	1.82	-0.26
3,937.00	21.09	233.160	3,816.08	-446.89	-652.46	-447.61	0.26	0.12	-0.65
4,030.00	20.88	236.490	3,902.92	-466.07	-679.67	-466.83	1.30	-0.23	3.58
4,125.00	19.81	235.720	3,991.99	-484.48	-707.09	-485.27	1.16	-1.13	-0.81
4,219.00	18.67	235.270	4,080.74	-502.03	-732.62	-502.84	1.22	-1.21	-0.48
4,313.00	17.50	235.210	4,170.09	-518.66	-756.59	-519.51	1.24	-1.24	-0.06
4,407.00	19.31	236.060	4,259.28	-535.40	-781.09	-536.28	1.95	1.93	0.90
4,501.00	19.98	235.320	4,347.81	-553.22	-807.19	-554.12	0.76	0.71	-0.79
4,596.00	21.14	234.490	4,436.76	-572.41	-834.49	-573.34	1.26	1.22	-0.87
4,691.00	21.16	234.330	4,525.36	-592.35	-862.36	-593.32	0.06	0.02	-0.17
4,785.00	21.38	234.430	4,612.95	-612.21	-890.08	-613.21	0.24	0.23	0.11
4,879.00	21.25	233.680	4,700.53	-632.27	-917.74	-633.30	0.32	-0.14	-0.80
4,972.00	20.51	237.040	4,787.42	-651.12	-944.99	-652.17	1.51	-0.80	3.61
5,067.00	17.97	237.580	4,877.11	-668.03	-971.33	-669.12	2.68	-2.67	0.57
5,162.00	16.98	235.930	4,967.72	-683.66	-995.19	-684.77	1.17	-1.04	-1.74
5,256.00	15.89	235.040	5,057.88	-698.72	-1,017.11	-699.86	1.19	-1.16	-0.95
5,349.00	13.86	233.250	5,147.76	-712.68	-1,036.47	-713.84	2.24	-2.18	-1.92
5,442.00	12.00	237.510	5,238.40	-724.54	-1,053.55	-725.72	2.25	-2.00	4.58
5,537.00	10.05	242.360	5,331.64	-733.70	-1,069.23	-734.89	2.27	-2.05	5.11
5,631.00	8.61	248.700	5,424.40	-740.06	-1,083.05	-741.27	1.88	-1.53	6.74
5,726.00	6.46	245.750	5,518.57	-744.84	-1,094.55	-746.06	2.30	-2.26	-3.11
5,820.00	4.25	244.810	5,612.16	-748.49	-1,102.53	-749.72	2.35	-2.35	-1.00
5,914.00	1.59	282.730	5,706.03	-749.69	-1,106.95	-750.92	3.35	-2.83	40.34
6,008.00	0.18	215.460	5,800.02	-749.52	-1,108.31	-750.76	1.63	-1.50	-71.56
6,102.00	1.10	115.930	5,894.02	-750.03	-1,107.58	-751.27	1.22	0.98	-105.88
6,197.00	0.85	109.130	5,989.00	-750.66	-1,106.10	-751.90	0.29	-0.26	-7.16
6,291.00	1.14	162.210	6,082.99	-751.78	-1,105.15	-753.02	0.99	0.31	56.47
6,385.00	1.63	172.320	6,176.96	-754.00	-1,104.69	-755.23	0.58	0.52	10.76
6,478.00	1.80	171.110	6,269.92	-756.75	-1,104.29	-757.98	0.19	0.18	-1.30
6,572.00	1.55	167.090	6,363.88	-759.45	-1,103.77	-760.68	0.29	-0.27	-4.28
6,667.00	1.31	157.510	6,458.85	-761.70	-1,103.07	-762.94	0.36	-0.25	-10.08
6,762.00	1.31	151.300	6,553.83	-763.66	-1,102.13	-764.89	0.15	0.00	-6.54

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Well:	Critter Creek 16-6005BE	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,856.00	0.69	145.740	6,647.81	-765.07	-1,101.30	-766.30	0.67	-0.66	-5.91
6,950.00	0.76	145.680	6,741.80	-766.05	-1,100.63	-767.28	0.07	0.07	-0.06
First SDI MWD Curve Survey									
6,965.00	0.87	42.437	6,756.80	-766.05	-1,100.50	-767.28	8.53	0.73	-688.29
Curve KOP									
7,045.00	7.55	10.910	6,836.55	-760.44	-1,099.09	-761.66	8.53	8.35	-39.41
7,140.00	20.49	6.400	6,928.52	-737.69	-1,096.04	-738.91	13.66	13.62	-4.75
7,235.00	25.89	1.090	7,015.82	-700.39	-1,093.79	-701.62	6.09	5.68	-5.59
7,329.00	32.07	358.610	7,098.02	-654.88	-1,094.01	-656.10	6.70	6.57	-2.64
7,423.00	37.75	356.050	7,175.07	-601.18	-1,096.60	-602.41	6.24	6.04	-2.72
7,518.00	46.29	355.770	7,245.59	-537.81	-1,101.14	-539.04	8.99	8.99	-0.29
7,612.00	55.81	355.420	7,304.61	-465.01	-1,106.76	-466.25	10.13	10.13	-0.37
7,707.00	66.67	356.620	7,350.25	-382.05	-1,112.49	-383.30	11.48	11.43	1.26
7,801.00	80.42	359.040	7,376.82	-292.19	-1,115.83	-293.44	14.83	14.63	2.57
7,895.00	89.23	1.140	7,385.29	-198.67	-1,115.67	-199.92	9.63	9.37	2.23
7,953.00	89.70	0.680	7,385.83	-140.68	-1,114.75	-141.93	1.13	0.81	-0.79
Last SDI MWD Curve Survey									
8,090.00	90.34	0.050	7,385.78	-3.68	-1,113.88	-4.93	0.66	0.47	-0.46
First SDI MWD Lateral Survey									
8,184.00	90.37	1.660	7,385.20	90.30	-1,112.47	89.06	1.71	0.03	1.71
8,278.00	90.87	1.200	7,384.18	184.26	-1,110.13	183.02	0.72	0.53	-0.49
8,373.00	91.11	0.870	7,382.54	279.24	-1,108.41	278.00	0.43	0.25	-0.35
8,467.00	90.50	0.970	7,381.22	373.21	-1,106.90	371.98	0.66	-0.65	0.11
8,561.00	89.83	359.590	7,380.95	467.21	-1,106.44	465.97	1.63	-0.71	-1.47
8,656.00	90.40	0.090	7,380.76	562.21	-1,106.71	560.97	0.80	0.60	0.53
8,749.00	89.53	357.520	7,380.82	655.18	-1,108.65	653.94	2.92	-0.94	-2.76
8,844.00	90.74	357.810	7,380.59	750.10	-1,112.52	748.85	1.31	1.27	0.31
8,938.00	91.74	0.310	7,378.56	844.05	-1,114.06	842.81	2.86	1.06	2.66
9,033.00	91.14	0.950	7,376.17	939.02	-1,113.02	937.77	0.92	-0.63	0.67
9,127.00	89.73	1.480	7,375.46	1,032.99	-1,111.02	1,031.75	1.60	-1.50	0.56
9,222.00	89.06	0.980	7,376.46	1,127.96	-1,108.98	1,126.72	0.88	-0.71	-0.53
9,317.00	89.77	1.550	7,377.43	1,222.93	-1,106.89	1,221.70	0.96	0.75	0.60
9,410.00	90.13	2.190	7,377.51	1,315.88	-1,103.85	1,314.65	0.79	0.39	0.69
9,505.00	89.70	2.350	7,377.65	1,410.81	-1,100.09	1,409.58	0.48	-0.45	0.17
9,599.00	90.67	2.080	7,377.35	1,504.74	-1,096.46	1,503.51	1.07	1.03	-0.29
9,692.00	90.70	1.990	7,376.24	1,597.67	-1,093.15	1,596.45	0.10	0.03	-0.10
9,786.00	91.37	1.670	7,374.54	1,691.61	-1,090.15	1,690.39	0.79	0.71	-0.34
9,880.00	91.01	359.970	7,372.59	1,785.57	-1,088.81	1,784.36	1.85	-0.38	-1.81
9,974.00	90.23	0.340	7,371.57	1,879.57	-1,088.55	1,878.35	0.92	-0.83	0.39
10,068.00	90.47	359.880	7,371.00	1,973.57	-1,088.37	1,972.35	0.55	0.26	-0.49
10,163.00	90.07	0.920	7,370.55	2,068.56	-1,087.71	2,067.34	1.17	-0.42	1.09
10,257.00	89.30	0.440	7,371.07	2,162.55	-1,086.59	2,161.34	0.97	-0.82	-0.51
10,351.00	89.46	0.470	7,372.08	2,256.54	-1,085.85	2,255.33	0.17	0.17	0.03
10,445.00	89.77	0.470	7,372.71	2,350.54	-1,085.08	2,349.32	0.33	0.33	0.00

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 16-6005BE
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Site:	Critter Creek 16 SE Pad	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Well:	Critter Creek 16-6005BE	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,539.00	89.87	1.150	7,373.01	2,444.53	-1,083.75	2,443.32	0.73	0.11	0.72
10,632.00	90.34	0.320	7,372.84	2,537.52	-1,082.55	2,536.31	1.03	0.51	-0.89
10,727.00	88.79	358.120	7,373.56	2,632.50	-1,083.85	2,631.29	2.83	-1.63	-2.32
10,821.00	90.80	0.560	7,373.90	2,726.48	-1,084.93	2,725.27	3.36	2.14	2.60
10,915.00	91.01	0.540	7,372.41	2,820.46	-1,084.03	2,819.25	0.22	0.22	-0.02
11,010.00	90.27	359.790	7,371.35	2,915.46	-1,083.75	2,914.24	1.11	-0.78	-0.79
11,104.00	90.00	0.040	7,371.13	3,009.45	-1,083.89	3,008.24	0.39	-0.29	0.27
11,199.00	88.43	358.950	7,372.43	3,104.44	-1,084.73	3,103.22	2.01	-1.65	-1.15
11,293.00	88.59	358.680	7,374.87	3,198.39	-1,086.67	3,197.17	0.33	0.17	-0.29
11,387.00	89.13	358.640	7,376.75	3,292.34	-1,088.87	3,291.12	0.58	0.57	-0.04
11,481.00	90.54	358.510	7,377.02	3,386.31	-1,091.21	3,385.09	1.51	1.50	-0.14
11,576.00	90.97	358.140	7,375.76	3,481.26	-1,093.99	3,480.04	0.60	0.45	-0.39
11,670.00	90.84	359.050	7,374.28	3,575.22	-1,096.29	3,573.99	0.98	-0.14	0.97
11,765.00	89.73	0.180	7,373.81	3,670.21	-1,096.93	3,668.99	1.67	-1.17	1.19
11,858.00	89.70	359.980	7,374.27	3,763.21	-1,096.80	3,761.98	0.22	-0.03	-0.22
11,953.00	89.87	359.060	7,374.63	3,858.21	-1,097.60	3,856.98	0.98	0.18	-0.97
12,047.00	89.90	358.760	7,374.81	3,952.19	-1,099.38	3,950.96	0.32	0.03	-0.32
12,141.00	90.77	0.380	7,374.26	4,046.18	-1,100.09	4,044.95	1.96	0.93	1.72
12,235.00	89.93	1.030	7,373.69	4,140.17	-1,098.93	4,138.94	1.13	-0.89	0.69
12,329.00	90.27	1.490	7,373.53	4,234.15	-1,096.87	4,232.92	0.61	0.36	0.49
12,424.00	90.67	1.130	7,372.75	4,329.12	-1,094.69	4,327.89	0.57	0.42	-0.38
12,518.00	91.14	2.220	7,371.26	4,423.07	-1,091.95	4,421.84	1.26	0.50	1.16
12,612.00	89.83	2.400	7,370.47	4,516.98	-1,088.16	4,515.77	1.41	-1.39	0.19
12,707.00	88.49	1.500	7,371.86	4,611.92	-1,084.93	4,610.70	1.70	-1.41	-0.95
12,800.00	88.66	0.920	7,374.17	4,704.87	-1,082.96	4,703.65	0.65	0.18	-0.62
12,895.00	88.73	0.380	7,376.34	4,799.83	-1,081.88	4,798.62	0.57	0.07	-0.57
12,989.00	88.96	0.050	7,378.23	4,893.81	-1,081.53	4,892.60	0.43	0.24	-0.35
13,084.00	89.26	0.110	7,379.71	4,988.80	-1,081.40	4,987.59	0.32	0.32	0.06
13,177.00	90.27	0.030	7,380.09	5,081.80	-1,081.29	5,080.59	1.09	1.09	-0.09
13,270.00	90.67	359.820	7,379.32	5,174.80	-1,081.41	5,173.59	0.49	0.43	-0.23
13,365.00	88.53	359.950	7,379.99	5,269.79	-1,081.60	5,268.58	2.26	-2.25	0.14
13,459.00	88.66	359.910	7,382.29	5,363.76	-1,081.71	5,362.55	0.14	0.14	-0.04
13,553.00	89.40	0.880	7,383.88	5,457.74	-1,081.06	5,456.53	1.30	0.79	1.03
13,648.00	90.44	1.210	7,384.02	5,552.73	-1,079.33	5,551.52	1.15	1.09	0.35
13,742.00	89.97	0.760	7,383.68	5,646.71	-1,077.72	5,645.50	0.69	-0.50	-0.48
13,836.00	90.13	0.840	7,383.60	5,740.70	-1,076.40	5,739.50	0.19	0.17	0.09
13,930.00	89.93	0.310	7,383.55	5,834.70	-1,075.46	5,833.49	0.60	-0.21	-0.56
14,025.00	90.10	0.250	7,383.52	5,929.70	-1,075.00	5,928.49	0.19	0.18	-0.06
14,119.00	89.87	359.070	7,383.55	6,023.69	-1,075.55	6,022.49	1.28	-0.24	-1.26
14,213.00	90.27	358.830	7,383.43	6,117.68	-1,077.28	6,116.47	0.50	0.43	-0.26
14,307.00	90.33	357.590	7,382.94	6,211.63	-1,080.21	6,210.42	1.32	0.06	-1.32
14,401.00	89.70	358.740	7,382.92	6,305.58	-1,083.22	6,304.36	1.39	-0.67	1.22
14,495.00	90.00	358.650	7,383.16	6,399.55	-1,085.36	6,398.34	0.33	0.32	-0.10

Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 16-6005BE
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Site:	Critter Creek 16 SE Pad	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Well:	Critter Creek 16-6005BE	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
14,589.00	90.64	358.900	7,382.64	6,493.53	-1,087.37	6,492.31	0.73	0.68	0.27
14,682.00	91.01	357.720	7,381.30	6,586.48	-1,090.12	6,585.25	1.33	0.40	-1.27
14,777.00	91.41	357.570	7,379.29	6,681.37	-1,094.02	6,680.15	0.45	0.42	-0.16
14,871.00	89.60	357.600	7,378.46	6,775.28	-1,097.98	6,774.05	1.93	-1.93	0.03
14,966.00	89.80	357.200	7,378.96	6,870.18	-1,102.29	6,868.95	0.47	0.21	-0.42
15,061.00	89.93	358.140	7,379.19	6,965.10	-1,106.15	6,963.86	1.00	0.14	0.99
15,155.00	89.33	358.640	7,379.79	7,059.06	-1,108.79	7,057.82	0.83	-0.64	0.53
15,250.00	90.91	0.370	7,379.59	7,154.05	-1,109.61	7,152.81	2.47	1.66	1.82
15,344.00	90.91	0.660	7,378.10	7,248.04	-1,108.77	7,246.80	0.31	0.00	0.31
15,438.00	89.26	359.930	7,377.96	7,342.03	-1,108.28	7,340.79	1.92	-1.76	-0.78
15,533.00	90.47	1.620	7,378.19	7,437.02	-1,107.00	7,435.78	2.19	1.27	1.78
15,627.00	90.20	1.500	7,377.64	7,530.98	-1,104.44	7,529.74	0.31	-0.29	-0.13
15,722.00	90.44	2.290	7,377.11	7,625.93	-1,101.30	7,624.69	0.87	0.25	0.83
15,816.00	90.44	2.570	7,376.38	7,719.84	-1,097.31	7,718.61	0.30	0.00	0.30
15,911.00	90.40	2.060	7,375.69	7,814.76	-1,093.48	7,813.53	0.54	-0.04	-0.54
16,006.00	89.70	1.300	7,375.60	7,909.72	-1,090.69	7,908.50	1.09	-0.74	-0.80
16,097.00	90.10	1.600	7,375.76	8,000.69	-1,088.39	7,999.47	0.55	0.44	0.33
16,188.00	89.93	2.310	7,375.74	8,091.64	-1,085.28	8,090.42	0.80	-0.19	0.78
16,279.00	89.30	358.900	7,376.35	8,182.61	-1,084.32	8,181.40	3.81	-0.69	-3.75
16,371.00	89.66	0.050	7,377.19	8,274.61	-1,085.17	8,273.39	1.31	0.39	1.25
16,462.00	90.07	0.230	7,377.40	8,365.60	-1,084.94	8,364.39	0.49	0.45	0.20
16,552.00	89.66	0.350	7,377.61	8,455.60	-1,084.49	8,454.39	0.47	-0.46	0.13
16,643.00	89.26	359.950	7,378.47	8,546.60	-1,084.25	8,545.38	0.62	-0.44	-0.44
16,734.00	89.87	0.860	7,379.16	8,637.59	-1,083.61	8,636.38	1.20	0.67	1.00
16,825.00	90.23	0.810	7,379.08	8,728.58	-1,082.28	8,727.37	0.40	0.40	-0.05
16,916.00	90.47	0.770	7,378.53	8,819.57	-1,081.03	8,818.36	0.27	0.26	-0.04
17,007.00	89.36	359.440	7,378.66	8,910.57	-1,080.86	8,909.35	1.90	-1.22	-1.46
17,098.00	89.13	358.920	7,379.86	9,001.55	-1,082.16	9,000.34	0.62	-0.25	-0.57
17,189.00	89.03	359.380	7,381.32	9,092.53	-1,083.51	9,091.31	0.52	-0.11	0.51
17,280.00	89.50	358.710	7,382.49	9,183.51	-1,085.03	9,182.29	0.90	0.52	-0.74
17,371.00	91.24	358.850	7,381.90	9,274.48	-1,086.96	9,273.26	1.92	1.91	0.15
17,463.00	91.64	359.140	7,379.59	9,366.44	-1,088.58	9,365.22	0.54	0.43	0.32
17,554.00	91.88	358.120	7,376.79	9,457.37	-1,090.75	9,456.14	1.15	0.26	-1.12
17,646.00	92.75	357.690	7,373.08	9,549.23	-1,094.11	9,548.00	1.05	0.95	-0.47
17,737.00	93.63	357.690	7,368.01	9,640.01	-1,097.77	9,638.78	0.97	0.97	0.00
17,828.00	94.79	356.730	7,361.33	9,730.66	-1,102.19	9,729.42	1.65	1.27	-1.05
17,919.00	95.57	356.330	7,353.12	9,821.12	-1,107.68	9,819.88	0.96	0.86	-0.44
Last SDI MWD Survey									
17,981.00	95.57	356.330	7,347.10	9,882.70	-1,111.63	9,881.45	0.00	0.00	0.00
Projection to TD									



Scientific Drilling, Intl
Survey Report



Company:	HighPoint Resources	Local Co-ordinate Reference:	Well Critter Creek 16-6005BE
Project:	Weld County, CO NAD 83	TVD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Site:	Critter Creek 16 SE Pad	MD Reference:	GL 5251.3' & KB 20' @ 5271.30ft (Savanna 802)
Well:	Critter Creek 16-6005BE	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Casper District

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
156.50	156.49	0.80	0.80	First GeoGuidance MWD Survey
1,491.50	1,488.77	-36.51	-56.05	Last GeoGuidance MWD Survey
1,606.00	1,602.62	-42.18	-66.80	First SDI MWD Inter. Survey
6,950.00	6,741.80	-766.05	-1,100.63	First SDI MWD Curve Survey
6,965.00	6,756.80	-766.05	-1,100.50	Curve KOP
7,953.00	7,385.83	-140.68	-1,114.75	Last SDI MWD Curve Survey
8,090.00	7,385.78	-3.68	-1,113.88	First SDI MWD Lateral Survey
17,919.00	7,353.12	9,821.12	-1,107.68	Last SDI MWD Survey
17,981.00	7,347.10	9,882.70	-1,111.63	Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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